



Washington Park Reservoir Improvements Public Involvement

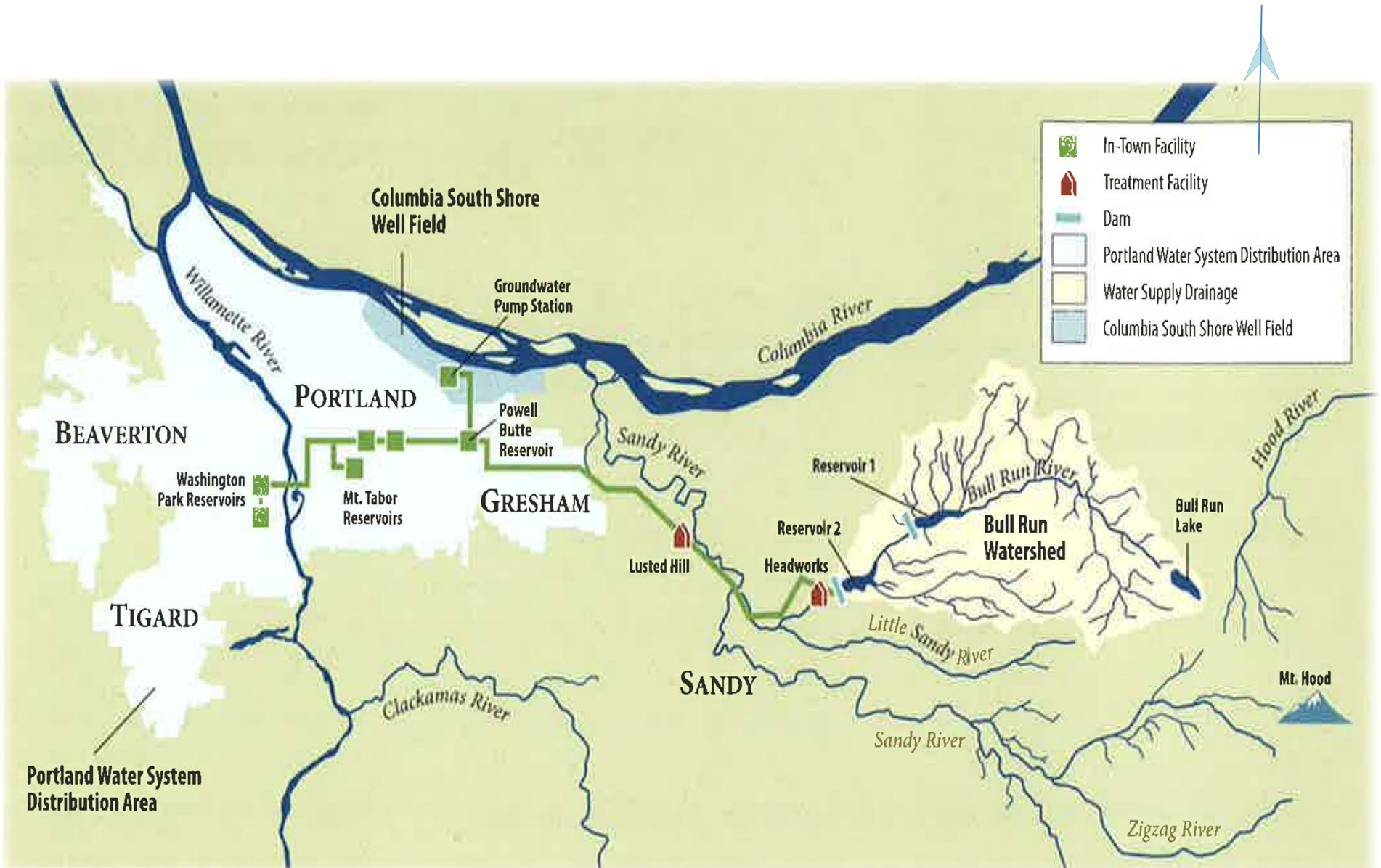
**May 9, 2014 AWWA PNWS Conference
Eugene, Oregon**

**Teresa Elliott, PE, PWB
Jennifer Garbely, PE, MSA
Corie Peterson, PE, AECOM**

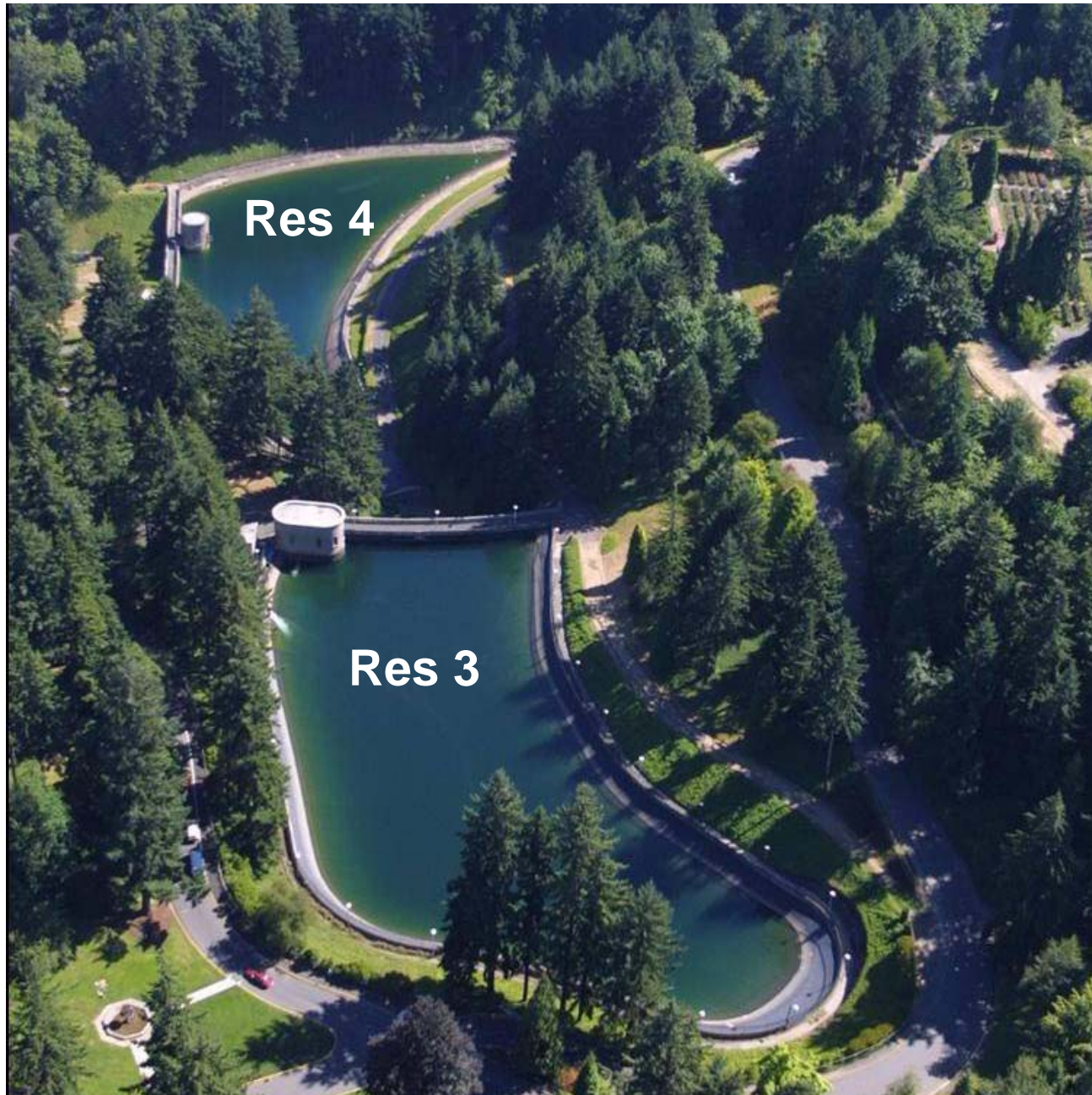


- Overview
- Public Outreach
- Design Objectives
- Visual Features Layouts
- Evaluation

Agenda

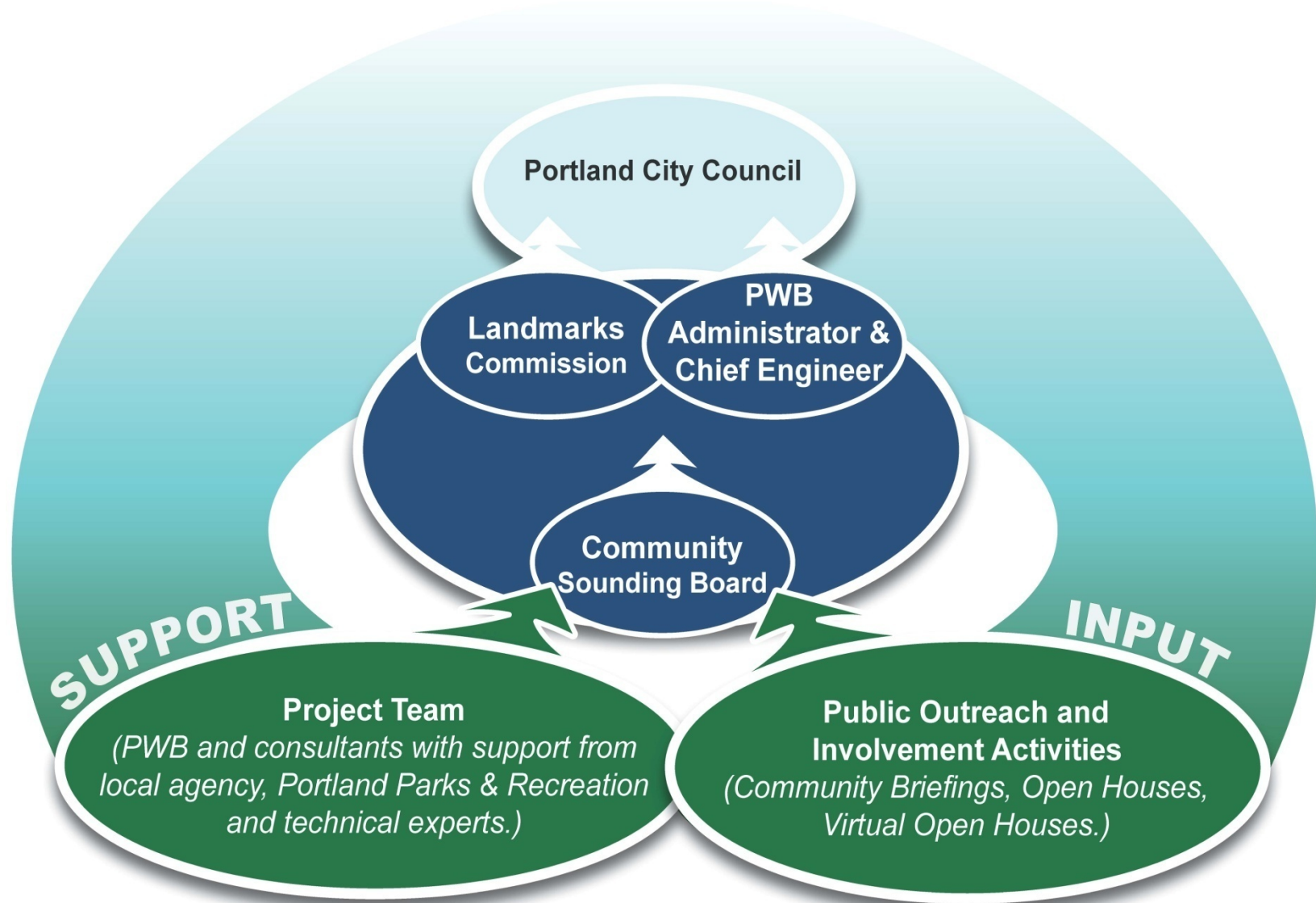


PWB System Overview

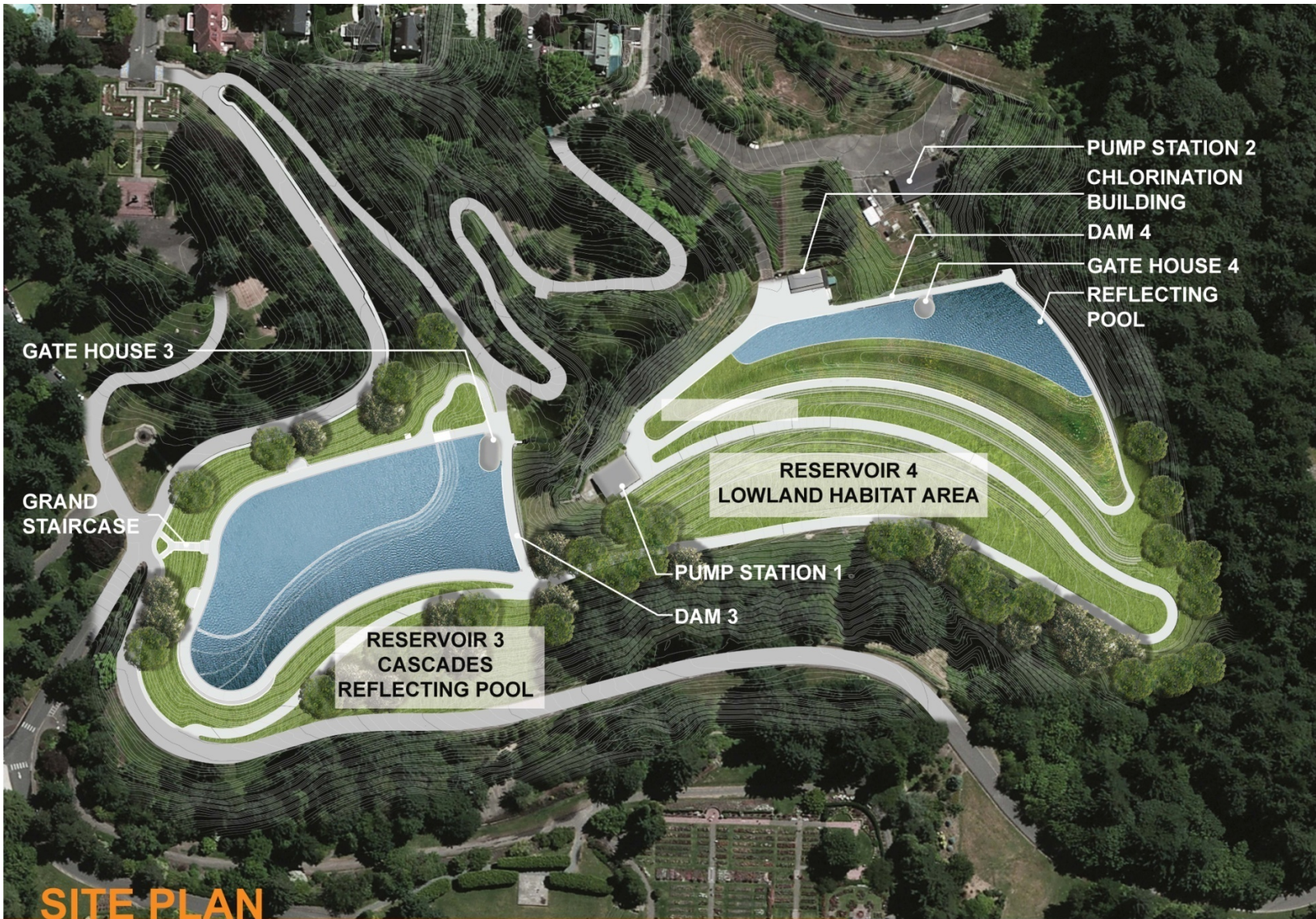


Regulatory Compliance

Portland City Council is the Project's Final Decision-Maker



Decision-Making Structure



SITE PLAN
 washington park reservoir improvements project



Washington Park Scope


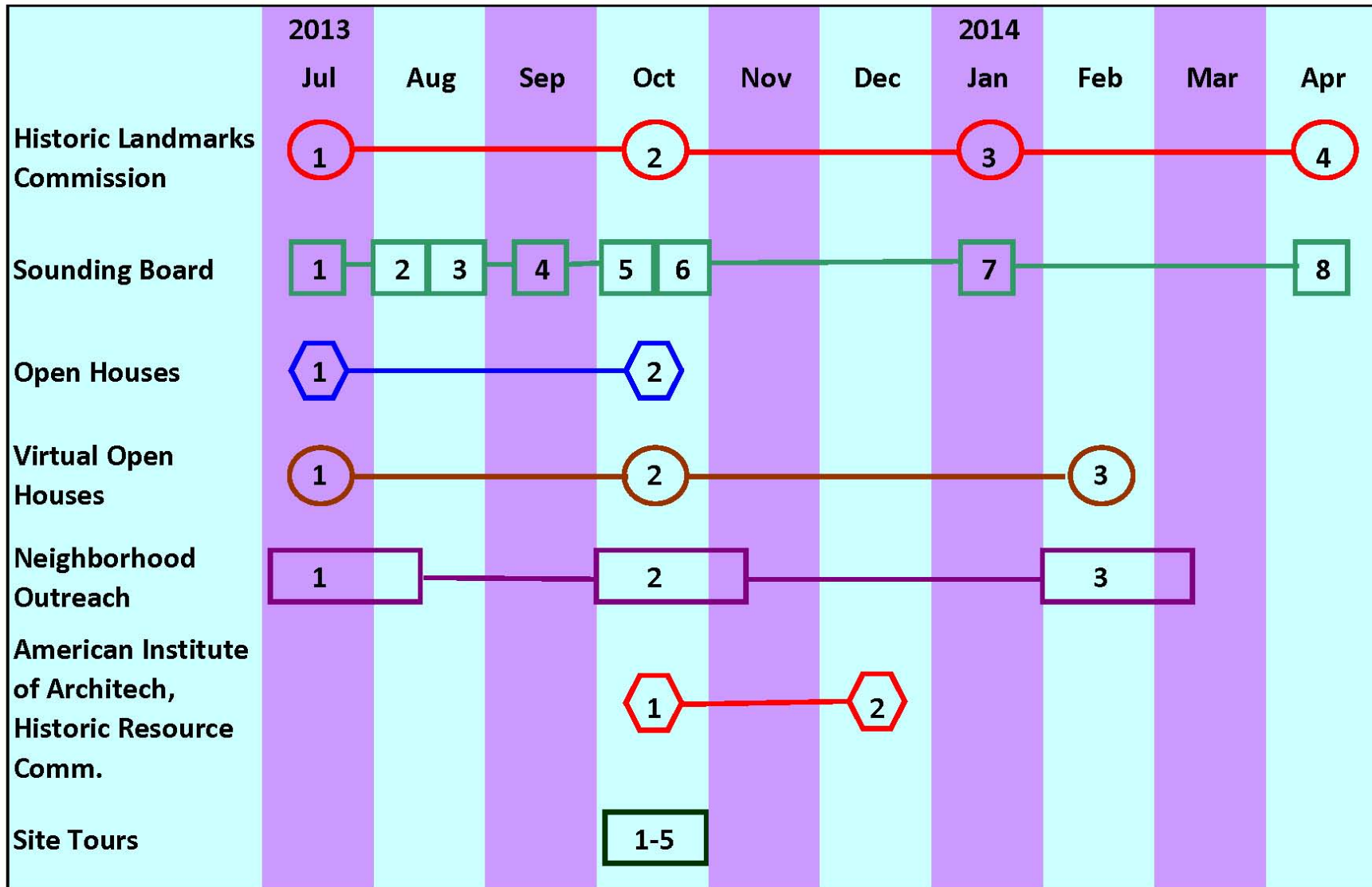
- 
1. Educate the public
 2. Seek public input on project aesthetics
 3. Provide factual and clear information to a broad range of audiences
 4. Identify concerns during construction

Photo courtesy Matt Blakeley-Smith, Institute for Applied Ecology

Public Outreach Purpose & Goals

Who's Participating So Far?



Public Involvement Schedule



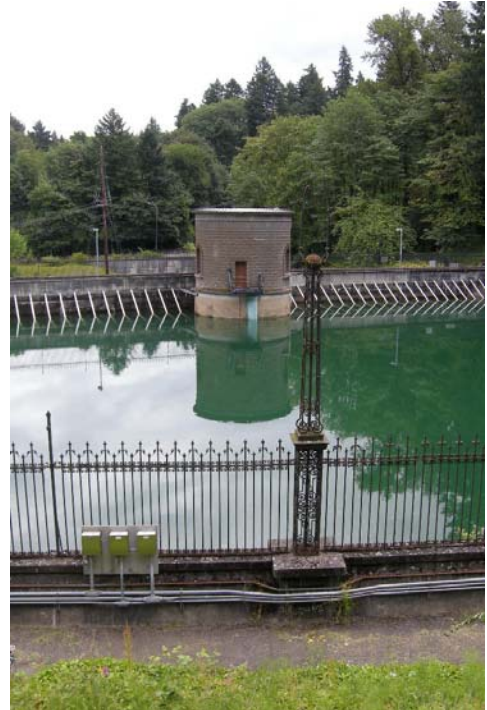
Members

1. Arlington Heights
2. Goose Hollow
3. Hillside
4. Northwest Heights
5. Sylvan-Highlands
6. Northwest District
7. Neighbors West Northwest
8. Pearl District
9. Parks & Recreation
10. Portland Water Bureau

Process



Sounding Board



Design Objectives

Visible Water

Access

Views

Use/ Function

Historic Character

Sounding Board Values



**Maximize water feature in the existing footprint
with thoughtful restoration**

Historic Landmarks Commission Values

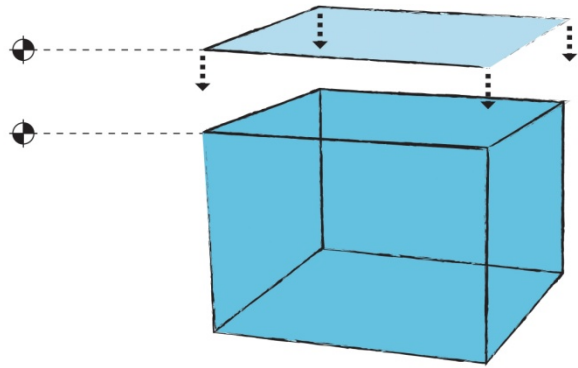


Importance

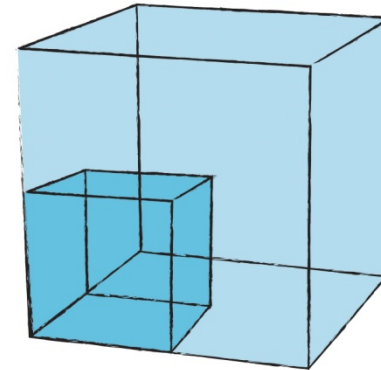
Prominent feature

Views

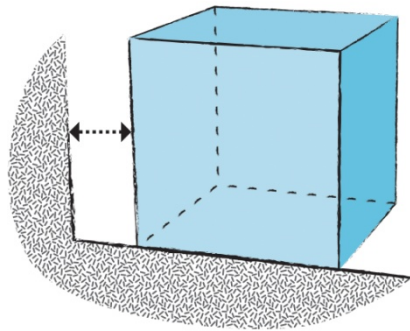
Portland Parks & Recreation Values



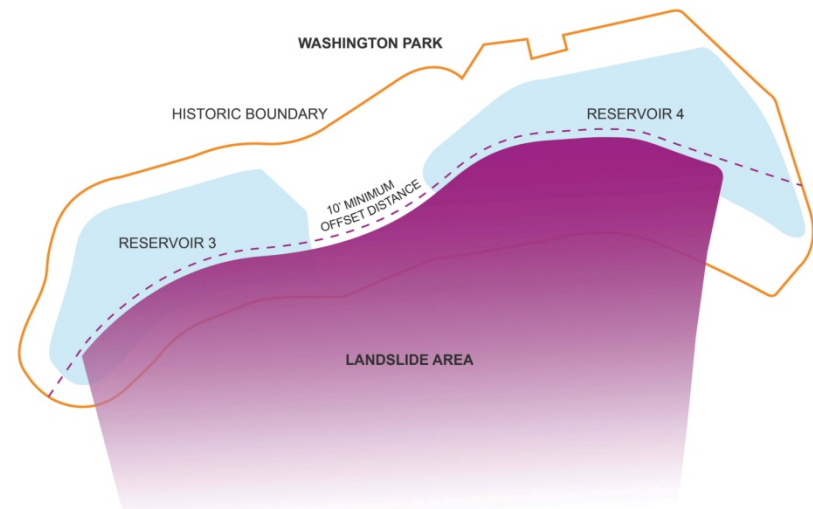
Surface Elevation



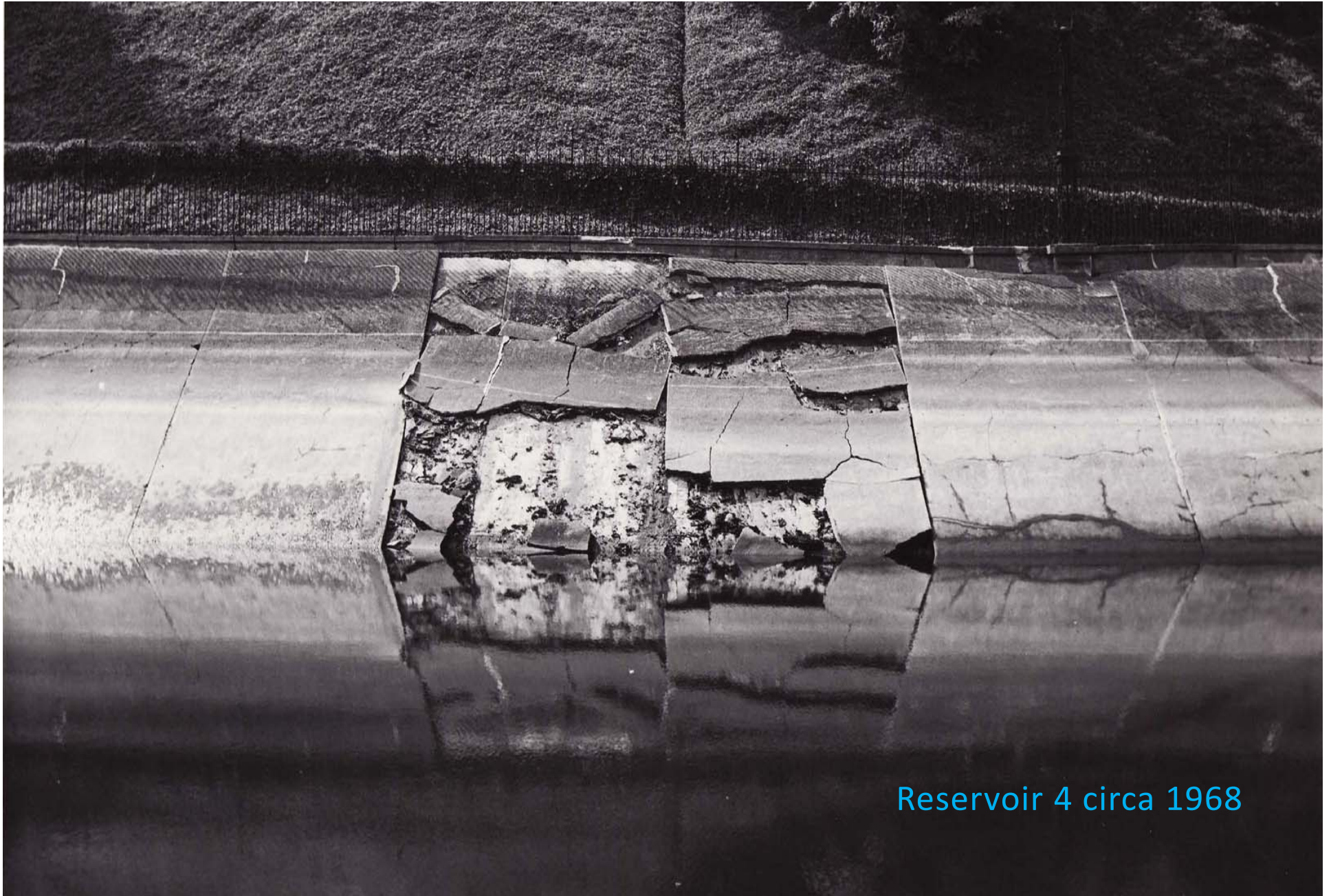
Storage Volume



Geotechnical Considerations



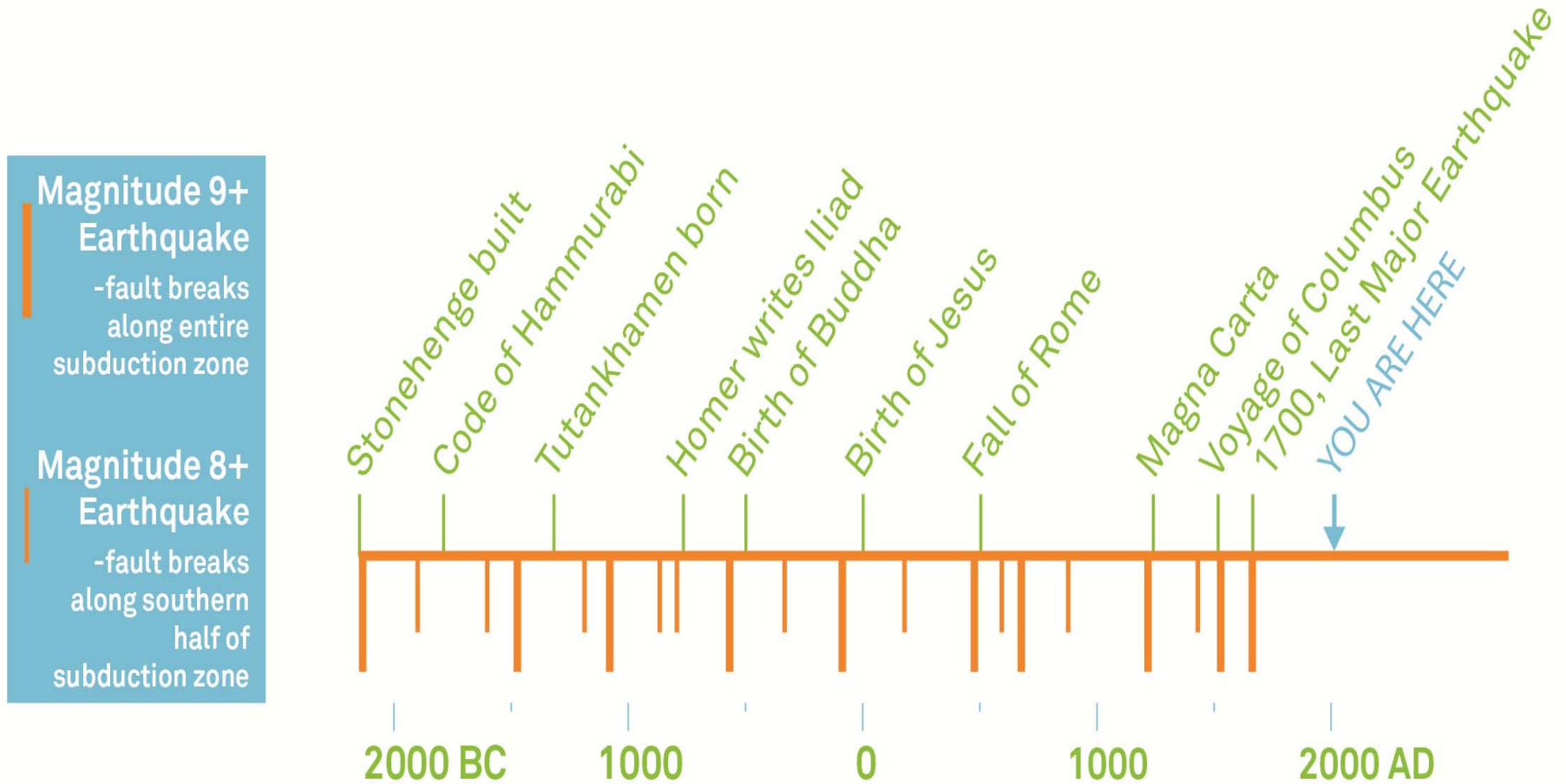
Design Constraints



Reservoir 4 circa 1968

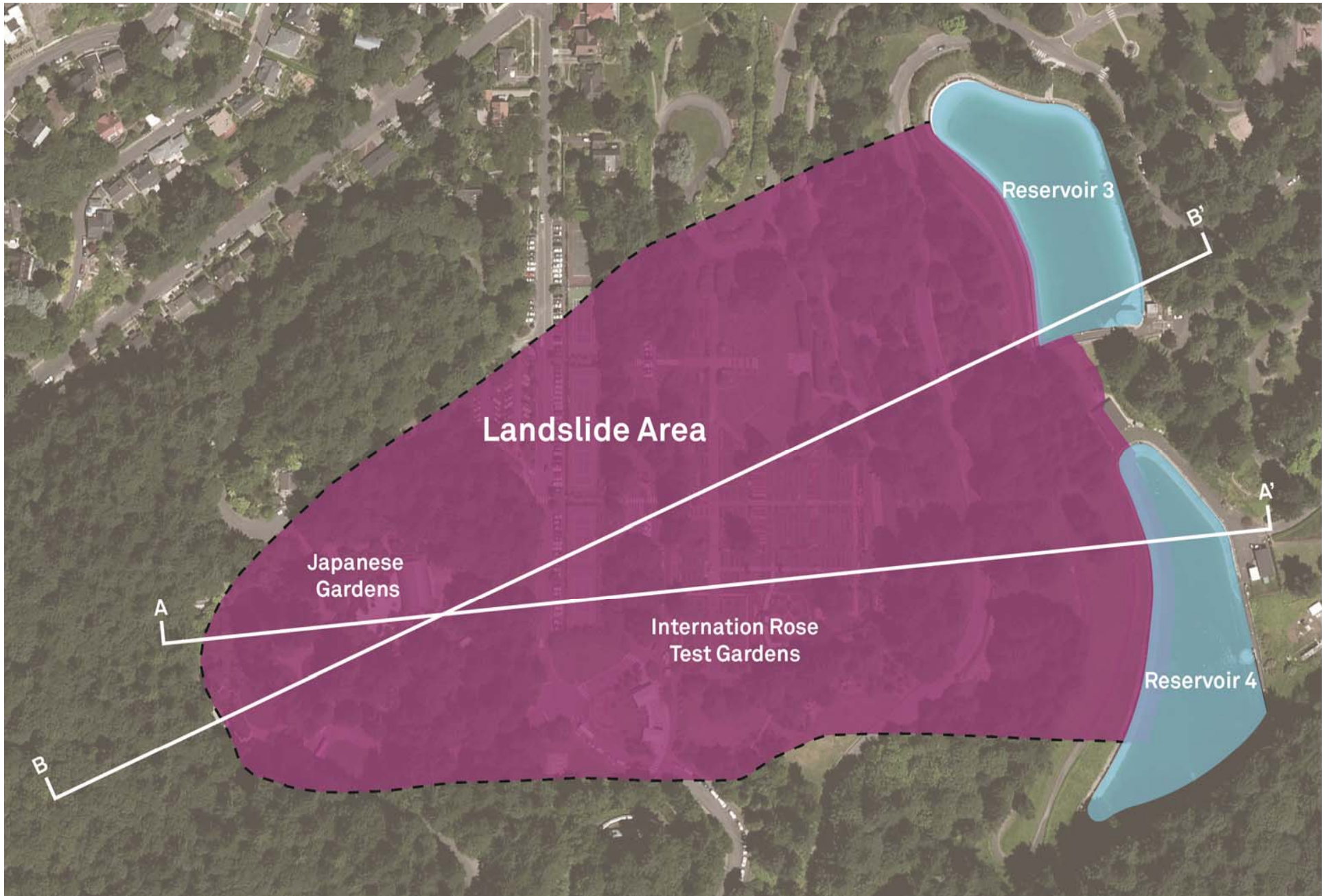
Aging Infrastructure

Earthquake Recurrence Rates for Cascadia Subduction Zone



Source: Oregon.gov

Seismic Vulnerabilities



Historic Landslide

Feedback on Big Ideas

- Maximize extent of visible water
- Views from the Grand Staircase and Dam 3 are very important
- Maintain the existing water/gatehouse relationship
- Large lawns are not appropriate in low lying areas

Your Questions

- What might these water features look like?
- What will security features look like and how will they function?
- How will pedestrian and vehicular access work in these options?
- How will historic features be treated/ enhanced/ removed?

What We Heard



Water Over the Divide



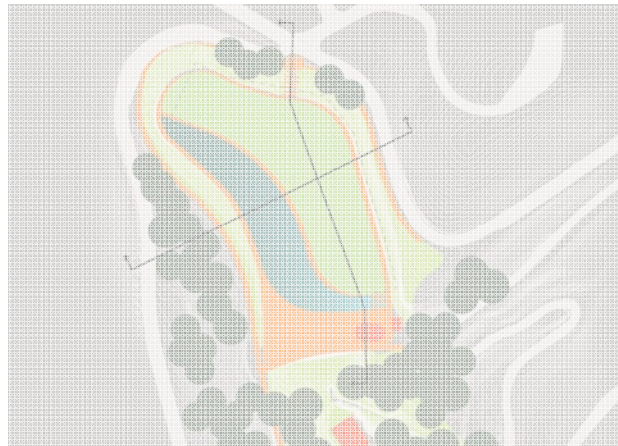
In the Ravine



Landscape Terraces (A)



Landscape Terraces (B) ●●●●●



Landscape Terraces (C) ●●●●●



Cascade ●●●●●

Reservoir 3 – Big Ideas Review



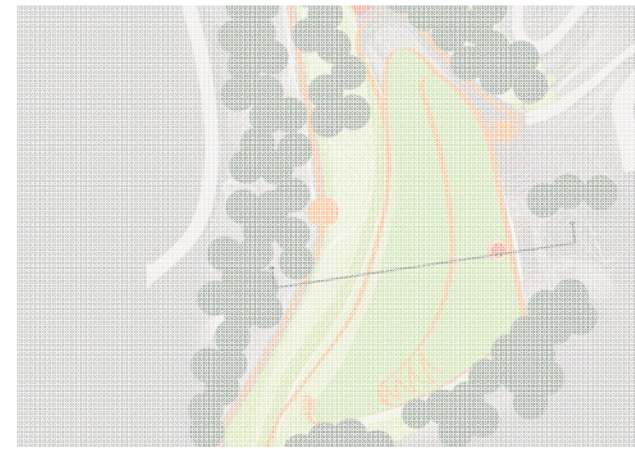
Buried Facilities - Reflecting Pool



Buried Facilities - Lawn

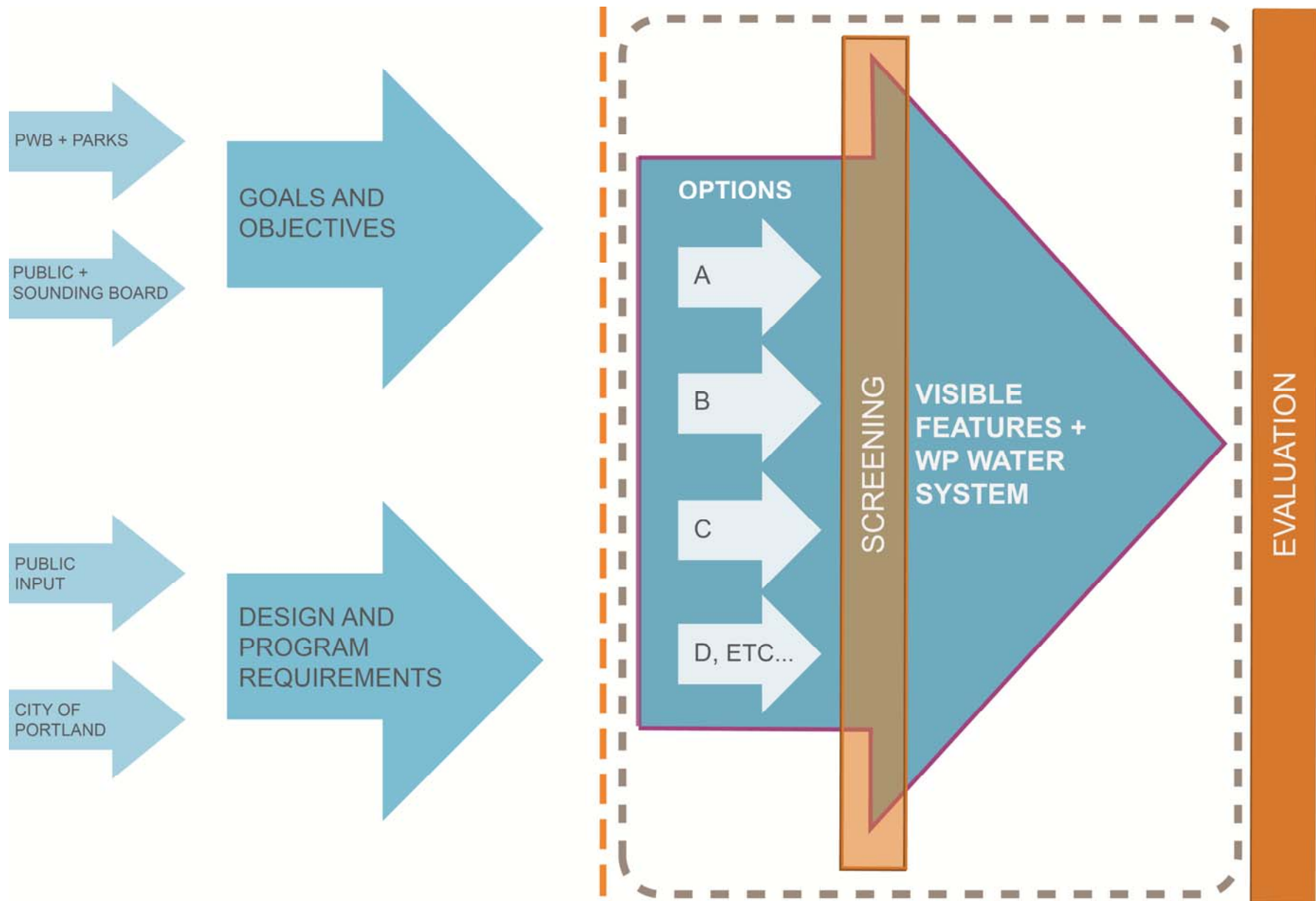


Open Basin - Habitat



Open Basin - Lawn





Reservoir 4 – Big Ideas Review



Process Flowchart

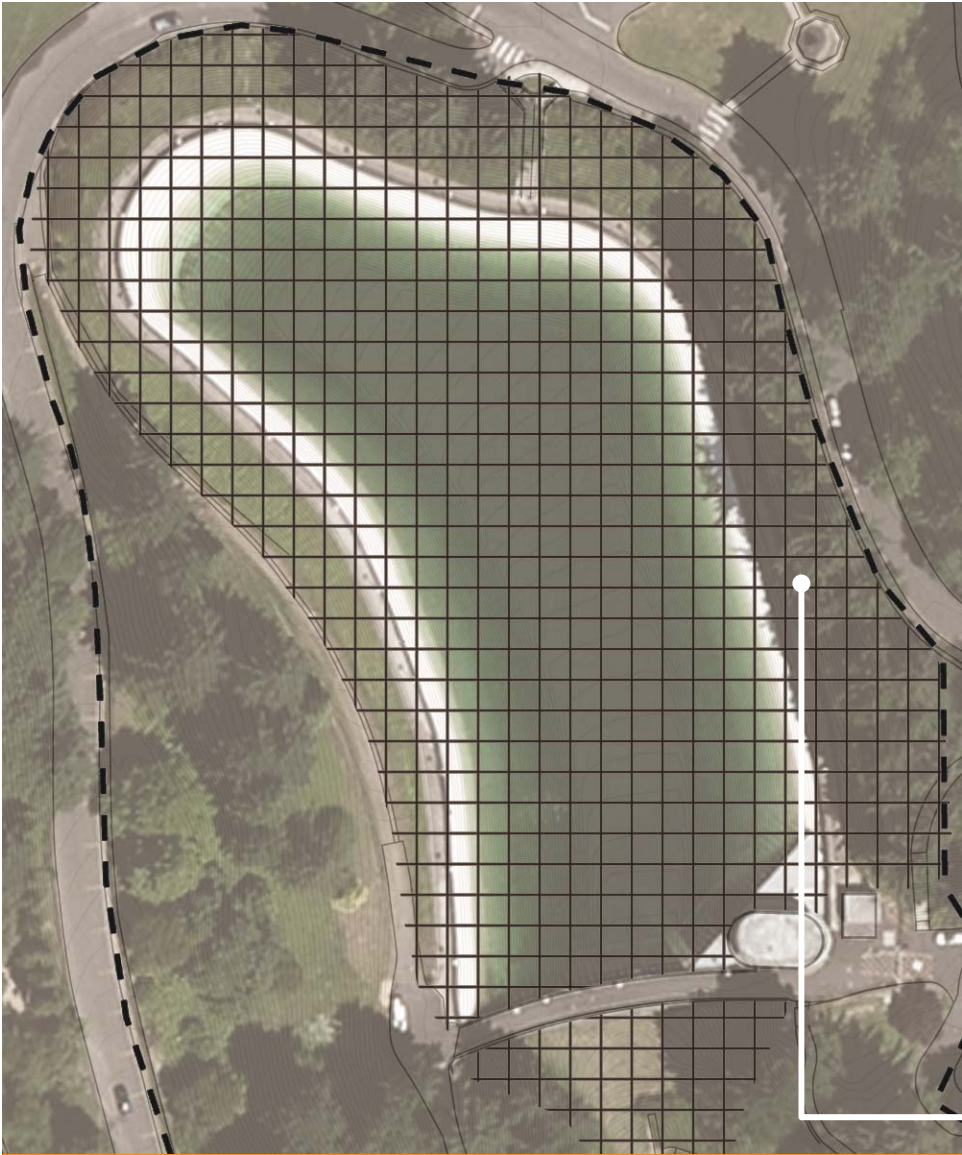


Project Impact on Historic Features

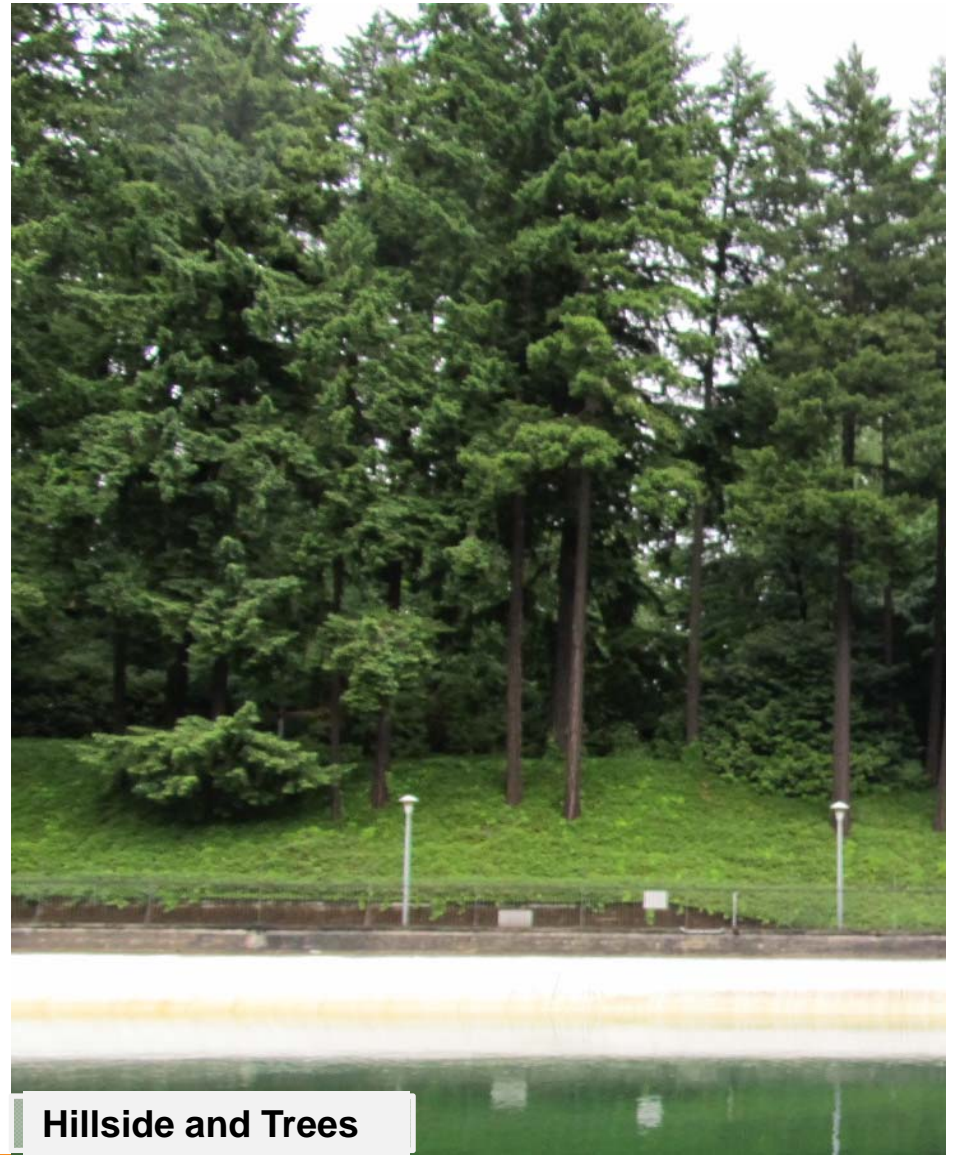
-  Character Defining Features Removed
-  Impact to Character Defining Features
-  Preservation Impact
-  Site Impact

Visible Features at Reservoir 3

Site Impact

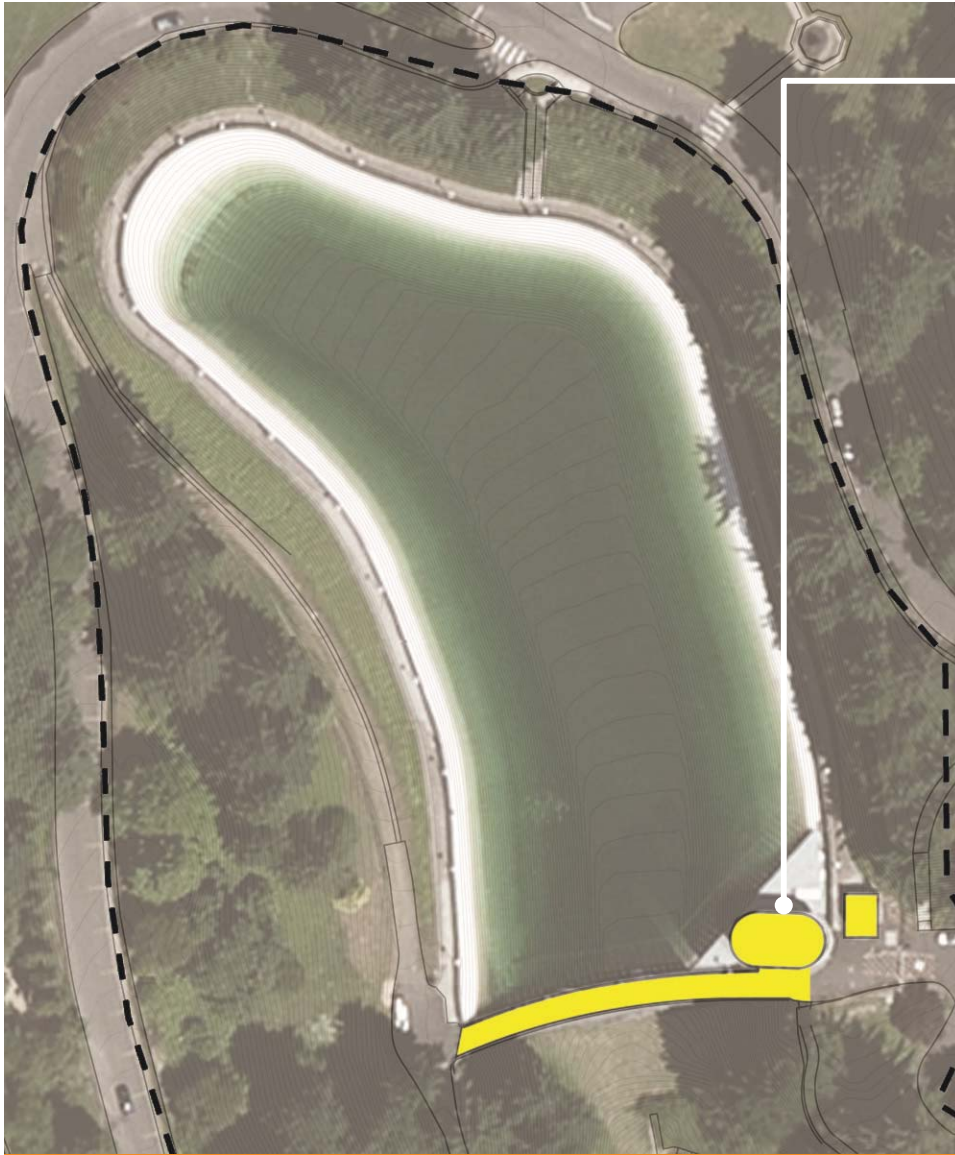


Historic Features Impact Diagram



Visible Features at Reservoir 3

Preservation Impact



Historic Features Impact Diagram



Visible Features at Reservoir 3

Preservation Impact



Historic Features Impact Diagram



Weir Building



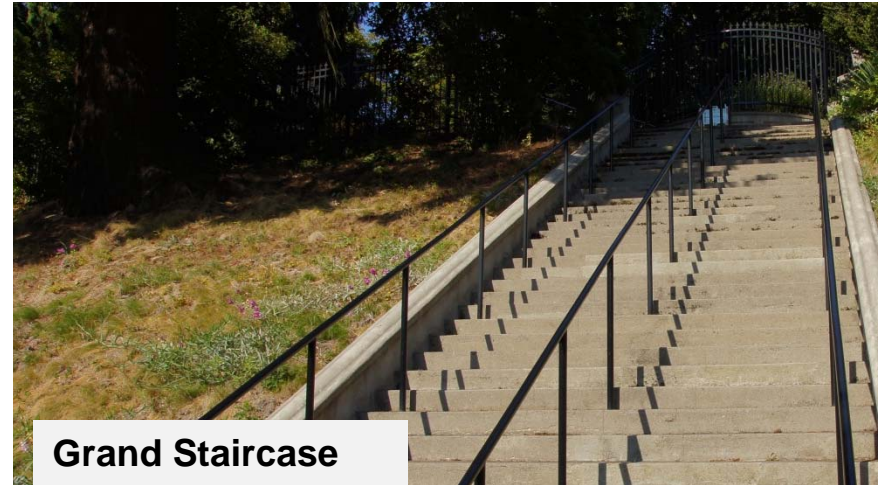
Dam 3

Visible Features at Reservoir 3

Impact to Character Defining Features



Historic Features Impact Diagram



Grand Staircase



Gutter & Walkway

Visible Features at Reservoir 3

Character Defining Features Removed



Historic Features Impact Diagram



Visible Features at Reservoir 3

Summary of Options



Water Over the Divide



In the Ravine






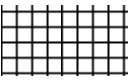
Landscape Terraces

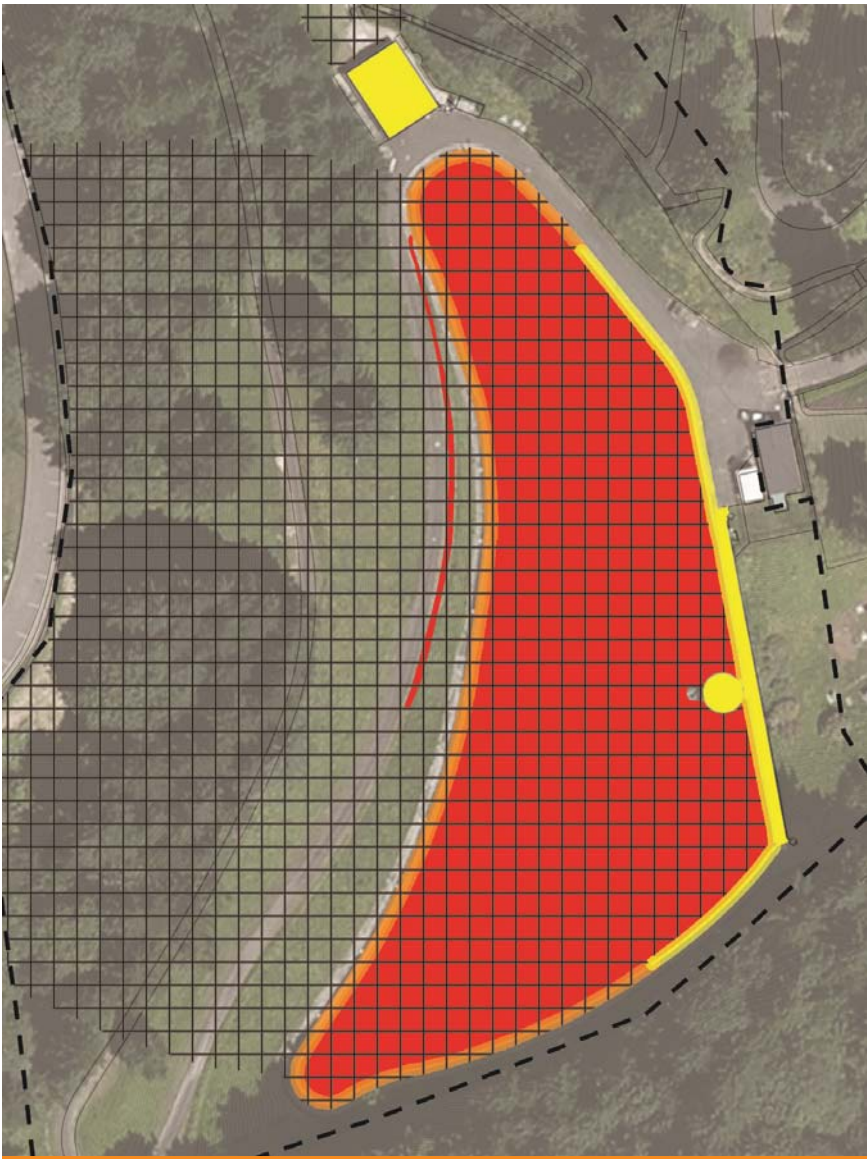


Cascade

Visible Features at Reservoir 3

Project Impact on Historic Features

-  Character Defining Features Removed
-  Impact to Character Defining Features
-  Preservation Impact
-  Site Impact



Visible Features at Reservoir 4

Site Impact



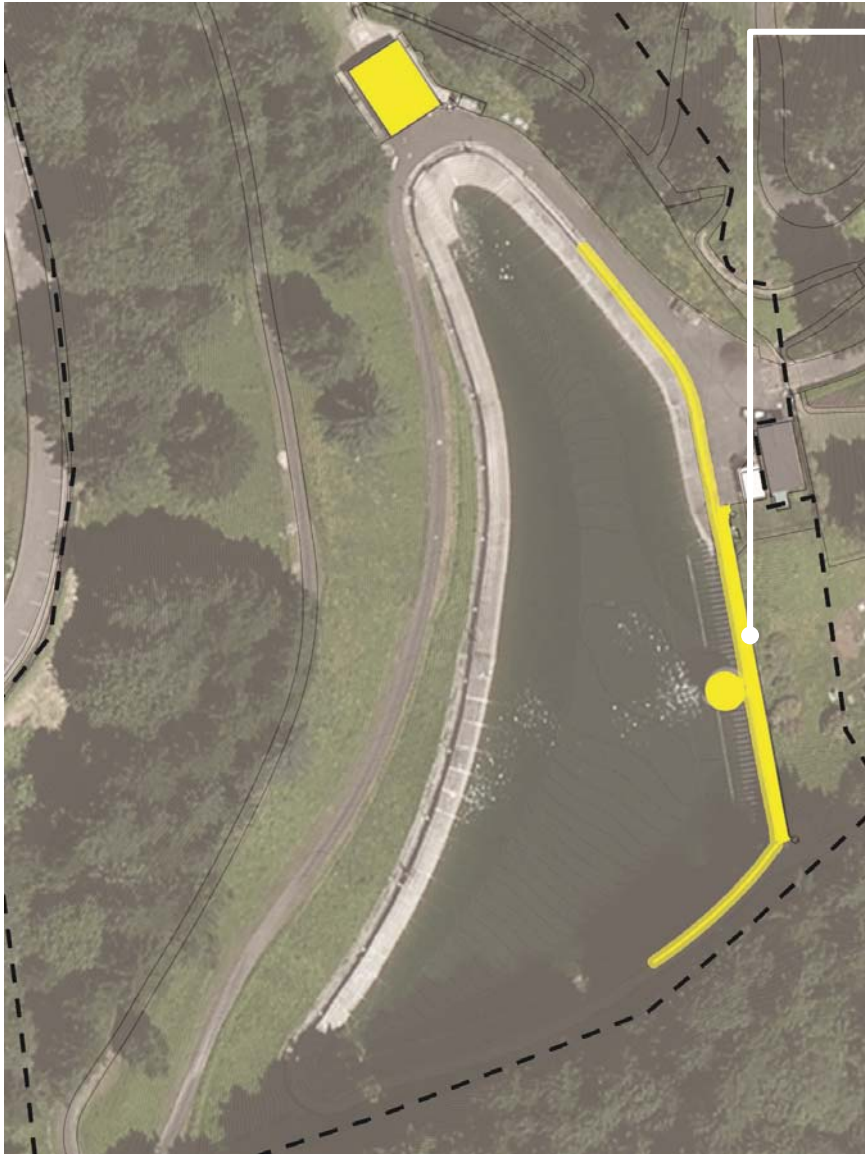
Historic Features Impact Diagram

Landslide Slope



Visible Features at Reservoir 4

Preservation Impact



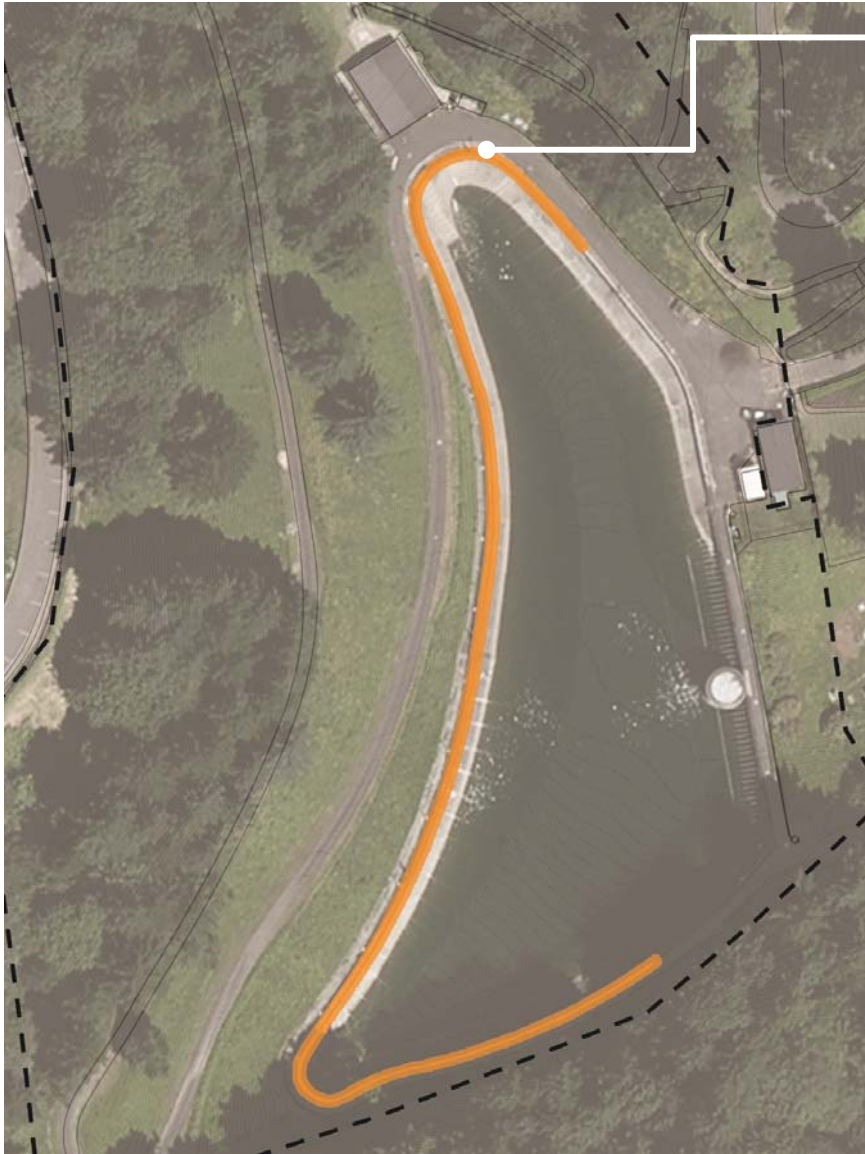
Historic Features Impact Diagram

Gatehouse 4 and Dam 4

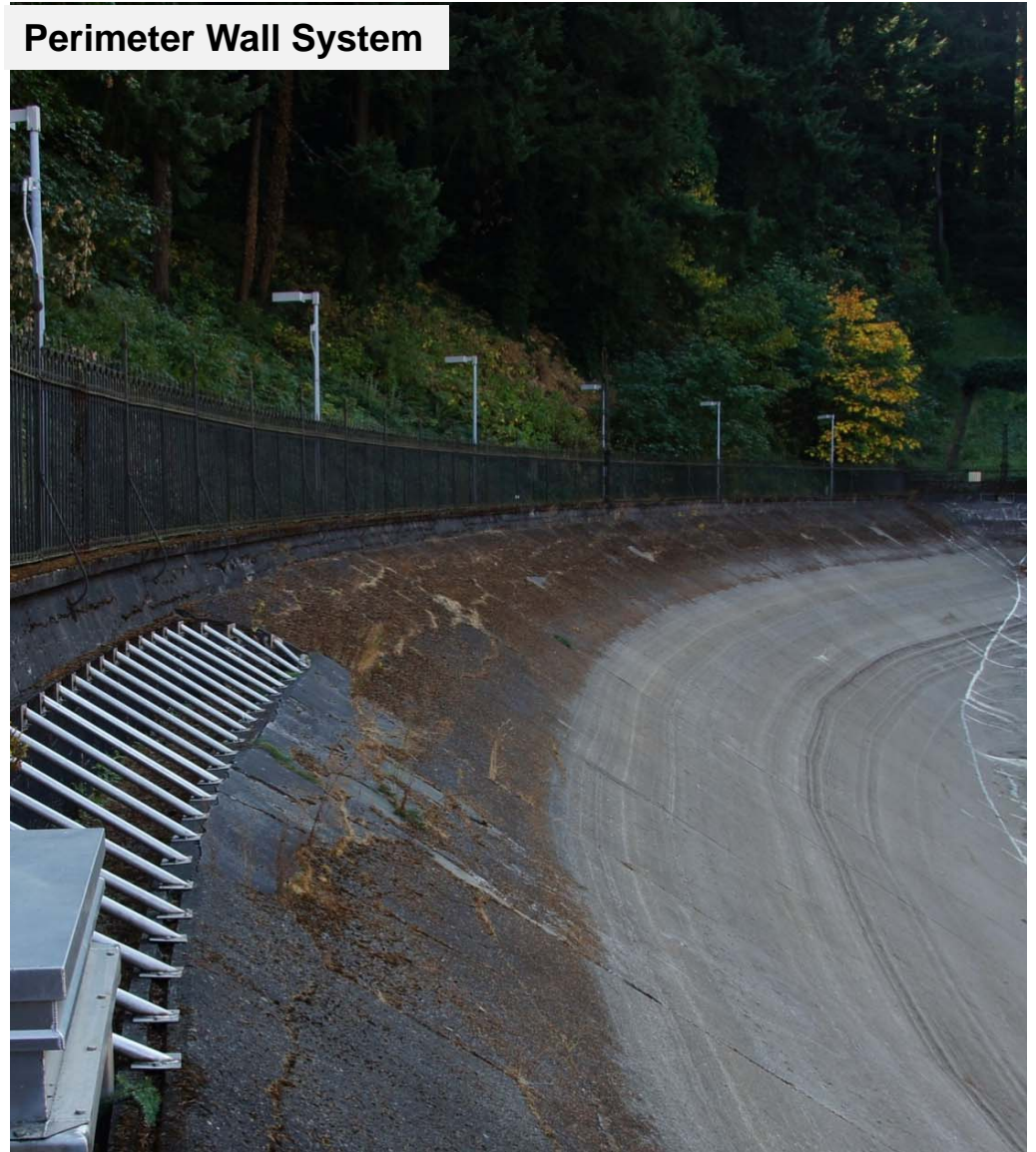


Visible Features at Reservoir 4

Impact to Character Defining Features



Historic Features Impact Diagram



Visible Features at Reservoir 4

Character Defining Features Removed

Historic Features Impact Diagram



Stone Retaining Wall



Reservoir 4 Basin

Visible Features at Reservoir 4

Summary of Options



Lowland Habitat



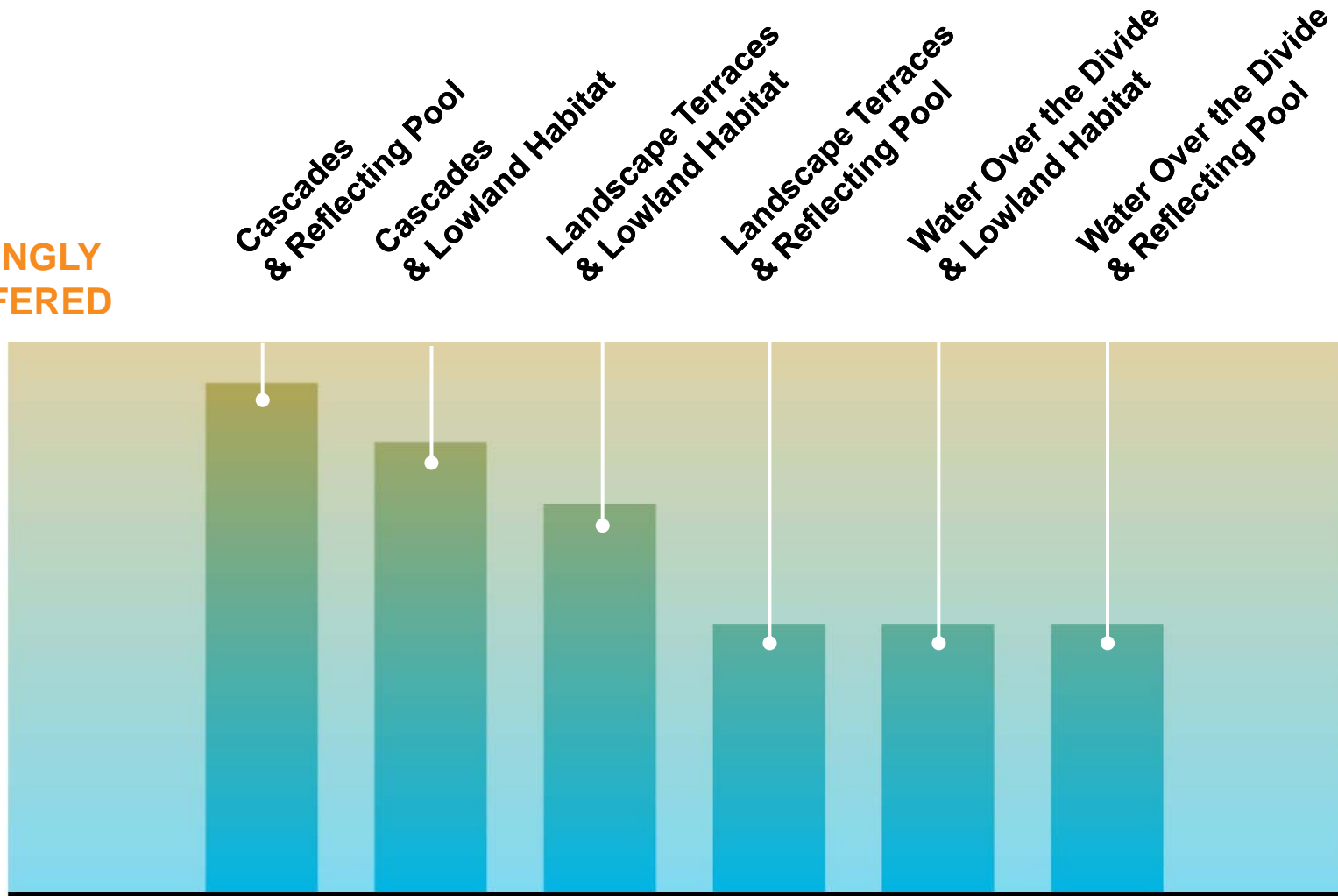
Reflecting Pool



Activity Lawn

Visible Features at Reservoir 4

**STRONGLY
PREFERRED**



Public preference for concept pairings

Survey Results



Cascades

PROS

- Largest expanse of water
- Inspired by the natural landscape
- Retains relationship between water and dam

CONS

- More complicated to construct



Landscape Terraces



Water Over the Divide



In the Ravine

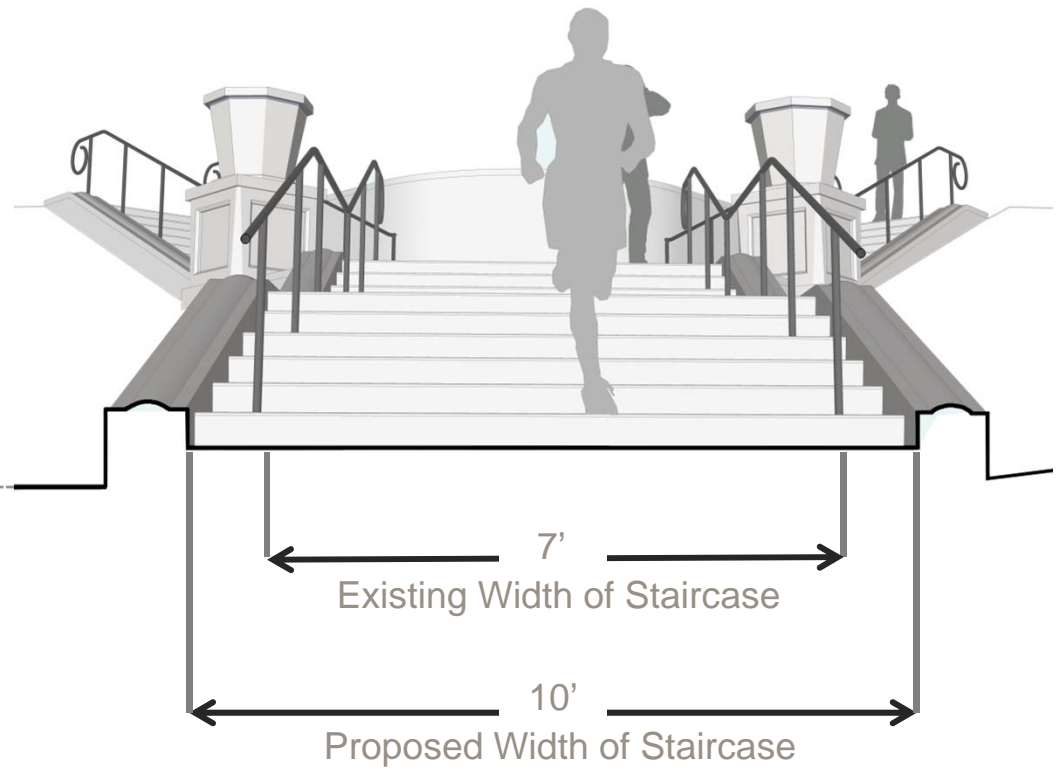
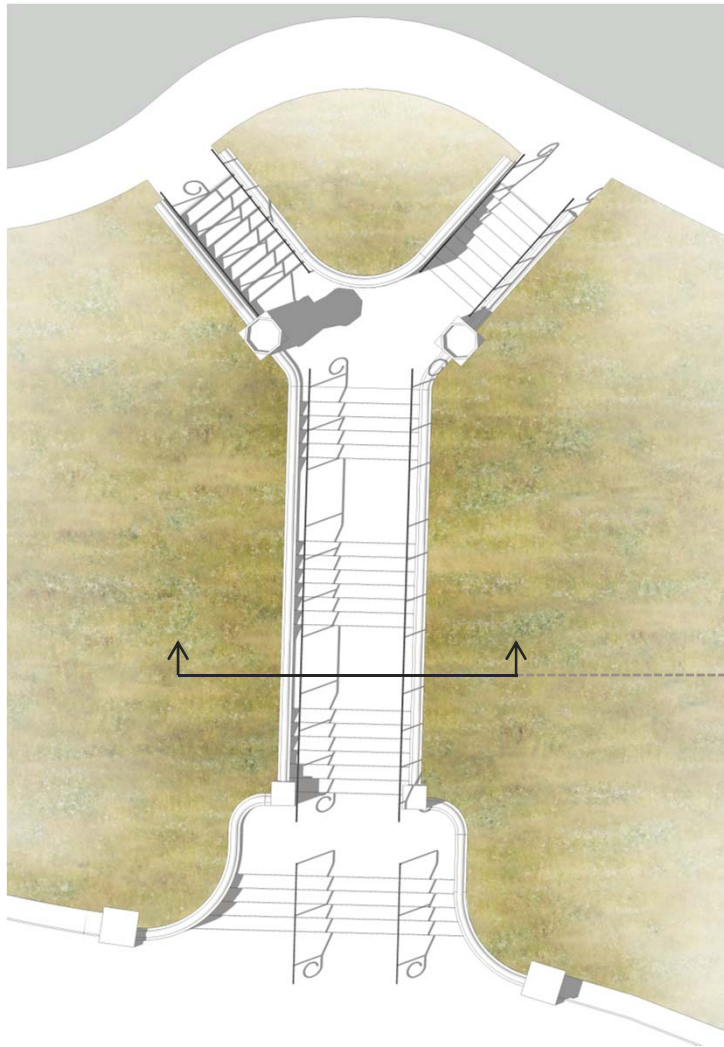
Evaluation of Reservoir 3

Historic View from the Top of the Grand Staircase



Reservoir 3

Character and Materials of the Grand Staircase



Reservoir 3

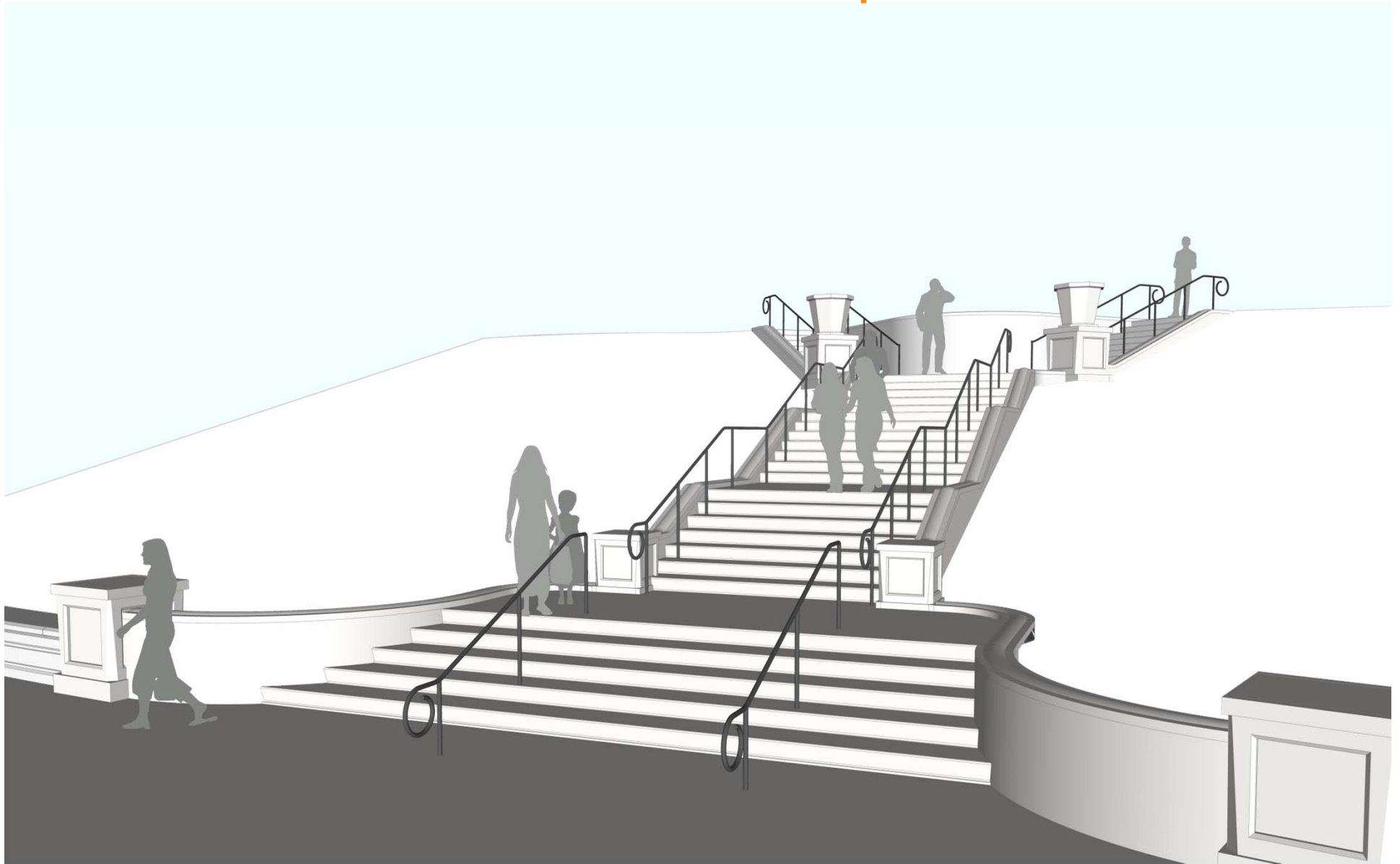


Birdseye of Grand Staircase



Reservoir 3

Perspective of Grand Staircase



Reservoir 3



Lowland Habitat

PROS

- Enhanced ecological function
- Supports habitat and storm water goals

CONS

- Less visible water



Reflecting Pool

PROS

- Large expanse of water
- Retains relationship between water and dam
- Strongly supported by HLC

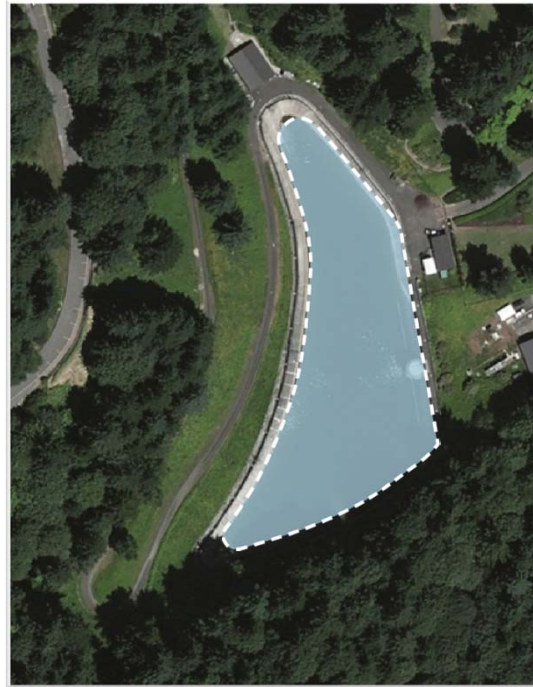
CONS

- Limited ecological function
- Less sustainable

Hybrid Option



**Current Design
Iteration**



Historic Condition



**Previous Design
Iteration**

Reservoir 4

Proposed View from Dam 3



Reservoir 4

Historic View from Dam 3



Existing View



Proposed View

Reservoir 4

Historic View from Sherwood Blvd



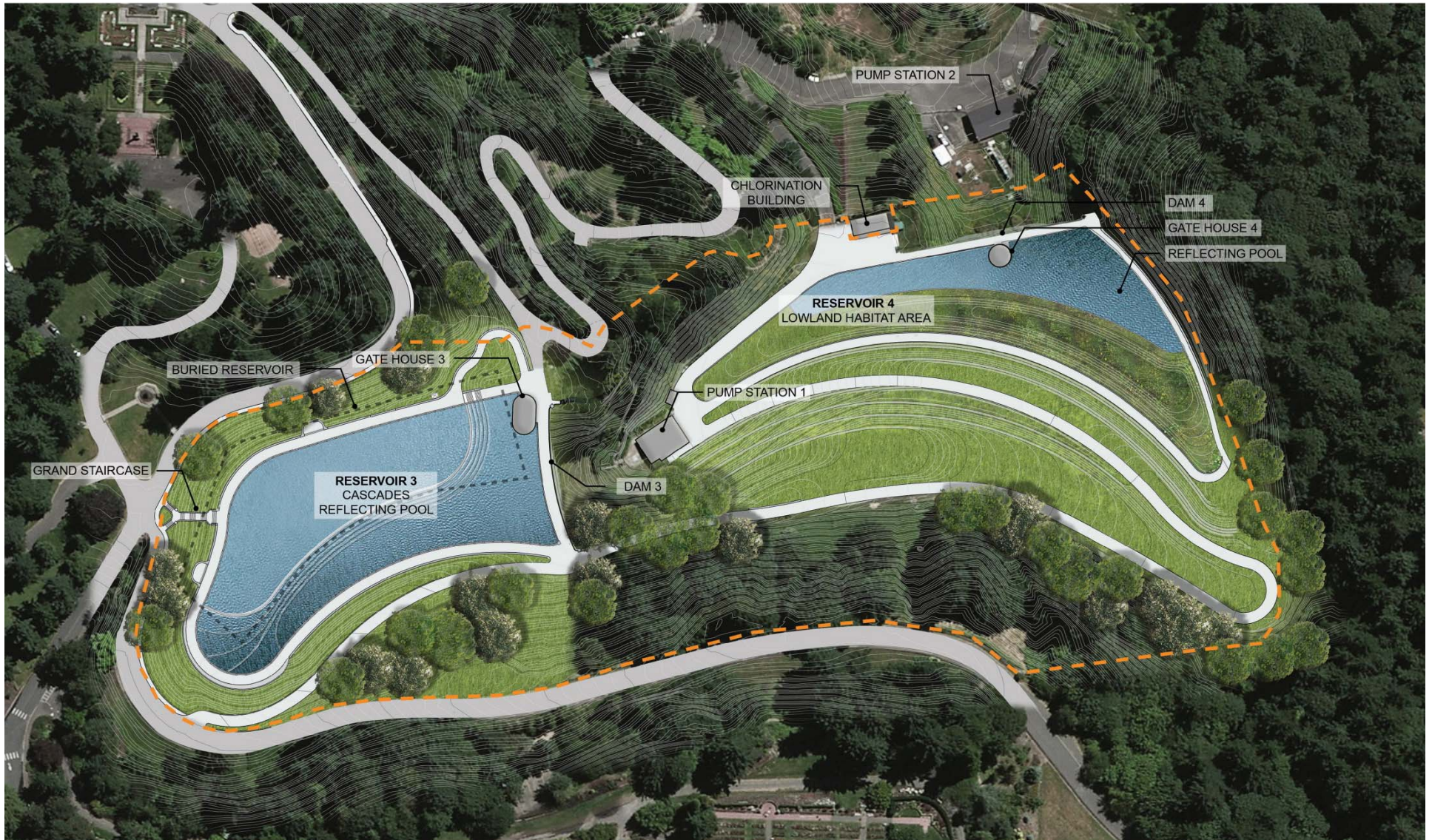
Existing View



Proposed View

Reservoir 4

Overall Site Plan



Washington Park Proposed Design



What is Working / What is not Working...



Social Media & Virtual Open Houses



Questions?